

Appl. No. 09/802,020
Amdt. dated February 4, 2004
Reply to Office Action of November 4, 2003

PATENT

REMARKS/ARGUMENTS

Amendments

The claims are modified in the amendment. Applicant respectfully requests reconsideration of this application as amended. Claims 2 and 17 have been amended in a manner that does not limit the original claim. Claim 19 has been cancelled. New claims 21 and 22 have been added. Therefore, claims 1-18 and 20-22 are present for examination. No new matter is added by these amendments, which are fully supported by the specification. Applicant respectfully requests reconsideration of this application as amended.

35 U.S.C. §112 Rejection

Claim 2 is rejected under 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter. This claim is amended to clarify that "n" is simply a constant as is well known in the art.

35 U.S.C. §102 Rejection, Sidwell et al.

The Office Action has rejected claims 1-20 under 35 U.S.C. §102(b) as being anticipated by cited portions of U.S. Patent No. 5,875,355 to Sidwell et al. (Sidwell). In their current form, claims 1, 9 and 17 are believed to distinguish Sidwell. More specifically, Sidwell cannot be relied on to teach or suggest: (1) that the destination only has a single row or column from the transposed matrix as required by claim 1; (2) a first processing path coupled to the first through fourth source registers as required by claim 9; or (3) having four sub-instructions in the same issue as required by claim 17. Applicant's respectfully request that the anticipation rejection be withdrawn for these reasons.

First Missing Limitation: Destination with Single Row or Column

Claim 1 requires that the destination only has a single row or column from the transposed matrix. Sidwell does not teach this limitation. Sidwell, Fig. 10.

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Second Missing Limitation: Four Input Registers Coupled to a Processing Path

Claim 9 requires coupling a first processing path to the first through fourth source registers. Sidwell only allows for one, two or three input operands. Sidwell, col. 4, lines 9-1. Four source registers allow the processing path to process larger portions of a matrix, for example.

Third Missing Limitation: Four Sub-Instructions in Same Issue

Claim 17 requires having four sub-instructions in the same issue. Applicants disagree with a related assertion regarding claim 13 in the third paragraph on page 5 of the Office Action. Specifically, the type unit 192 only receives a single opcode 160 and decodes it to determine what single instruction was requested. Sidwell, col. 9, lines 35-37. Sidwell can only issue a single instruction at a time. By processing multiple sub-instructions in a single issue, the claimed invention can perform, for example, a complete transpose of a 4x4 matrix with a single instruction where each input register holds four elements.

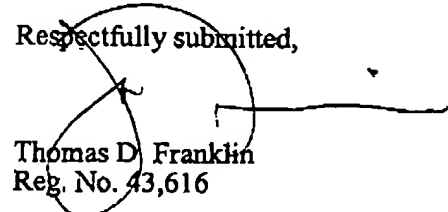
For the forgoing reasons, reconsideration of the amended claims is respectfully requested.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is urged. Reconsideration of the claims in their current form is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,


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